

REMARKS

In the Final Office Action, the Examiner (1) allowed claims 4 and 6-21; (2) rejected claims 1-3, 5, 25, and 26 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,967,164, issued to Denda et al. (hereinafter “Denda”); (3) rejected claims 22 and 23 under 35 U.S.C. 103(a) as being unpatentable over Denda in view of U.S. Patent No. 5,497,672, issued to Appleford et al. (hereinafter “Appleford”); and (4) rejected claim 24 under 35 U.S.C. 103(a) as being unpatentable over Denda in view of Appleford and in further view of U.S. Patent No. 4,159,658, issued to Parkinson (hereinafter “Parkinson”). Applicant respectfully requests reconsideration and withdrawal of the rejections in view of the amendments and the remarks that follow.

I. Status of the Claims

Claims 1-26 are pending.

Claims 4 and 6-21 are allowed.

Claims 1-3, 5, 25, and 26 are currently amended.

II. Claims Rejected as Anticipated by Denda

The Examiner rejects claims 1-3, 5, 25, and 26 as anticipated by Denda. Claims 1 and 26 are independent claims. Claims 2, 3, 5, and 25 depend from claim 1.

Claim 1

Claim 1 recites a valve device arranged following the dosing gap in a direction of fluid flow of the additive fluid. The Denda dosing gap is throughput cross section 5. Col. 5, Lines 8-13. Denda does not disclose a valve device following the Denda dosing gap. Rather, Denda discloses that stop bead or flange 6 (the Denda valve) is upstream of the Denda dosing gap, not downstream of it as required by claim 1.

The Examiner identifies recesses 14a as the Denda dosing gap. Applicant respectfully traverses. The cross-section of each recess 14a between the inner surface of sleeve 12 and the constant-diameter portion of valve needle 4 extending from flange 6 is unadjustable. For this reason, flow through recesses 14a is constant despite any movement of valve needle 4. Therefore, recesses 14a are not an adjustable dosing gap.

Claim 1 further requires the valve device to be moveable from a closed position to an open position, and that, as the valve device moves from the closed position to the open position, the dosing gap is unadjusted. Denda does not disclose a dosing gap that is *unadjusted* when the Denda valve moves from a closed position to an open position. The Denda valve (stop bead 6) is coupled to valve needle 4. Any movement of the Denda valve simultaneously moves valve needle 4, including its tapered portion, and therefore adjusts the Denda dosing gap (throughput cross section 5).

Because Denda does not disclose the claimed valve device or the claimed dosing gap, Denda does not anticipate claim 1 and its dependent claims 2, 3, 5, and 25 for at least the same reasons.

Further in regards to claims 2 and 3, the flow area of the Denda dosing gap (throughput cross section 5) *decreases* as valve needle 4 moves in the direction of fluid flow of the additive fluid, which is opposite to that required by claims 2 and 3. Further in regards to claim 5, the Denda dosing cone cannot move relative to the Denda valve device. Further in regards to claim 25, Denda does not disclose an inlet for the additive fluid disposed between two insertion bevels. For at least these additional reasons, claims 2, 3, 5, and 25 are not anticipated by Denda.

Claim 26

Claim 26 recites a valve device arranged following the dosing cone in a direction of fluid flow of the additive fluid. Even assuming arguendo that the tapered portion of valve needle 4 is equivalent to the claimed dosing cone, the tapered portion of valve needle 4 is downstream of the Denda valve (stop bead 6), not upstream as required by claim 26.

Claim 26 further recites the valve device to be adjustable as the valve device moves to the open position without moving the dosing cone relative to the counter element. As described above, the tapered portion of valve needle 4 always moves when the Denda valve (stop bead 6) adjusts due to the fact that each is located at opposite ends of the same component, namely valve needle 4. Consequently, when the Denda valve device is adjusted to an open position, the tapered portion of valve needle 4 (the Denda dosing cone) moves relative to the Denda counter element (sleeve 12), in contrast to that required by claim 26.

For these reasons, Denda does not anticipate claim 26.

III. Claims Rejected as Obvious

The Examiner rejects claims 22 and 23 as obvious over Denda in view of Appleford, and claim 24 as obvious over Denda in view of Appleford and in further view of Parkinson. The Examiner relies on Appleford to teach an adjustment device, on Parkinson to teach a code carrier of a position sensor, and on Denda to disclose all of the remaining limitations of the rejected claims. Claims 22-24 depend from claim 1. As discussed above, Denda does not disclose the valve device and dosing gap recited by claim 1. Neither Appleford nor Parkinson obviates its deficiencies. Therefore, the combination of these references does not render obvious claim 1 or its dependent claims 22-24 for at least the same reasons.

Further with respect to claims 22-24, Appleford teaches a worm gear 9, not a helically toothed spur gear. For at least this additional reason, the combination of these references does not render obvious claims 22-24.

CONCLUSIONS

Applicant respectfully requests reconsideration, withdrawal of the rejections, and allowance of the pending claims. It is the Applicant's desire that this case be brought to a prompt resolution. Therefore, if the Examiner feels that a telephone conference would expedite the resolution of this case, he is respectfully requested to contact the undersigned. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

During the course of these remarks, Applicant has at times referred to particular limitations of the claims that are not shown in the applied prior art. This short-hand approach to discussing the claims should not be construed to mean that the prior art discloses all of the other claimed limitations, or that the other claimed limitations are not part of the claimed invention. They are, as required by law. Consequently, when interpreting the claims, each of the claims should be construed as a whole, and patentability determined in light of the claimed combination as a whole. Applicant reserves the right to submit the original claims, as well as any canceled claims, in a continuing application and prosecute those claims fully, without regard to any amendments made to those claims in the present application.

Should any fees have been inadvertently omitted, or if any additional fees are required, or if any fees have been overpaid, please appropriately charge or credit those fees to Deposit Account No. 03-0335 of Cameron International Corporation and consider this paper a petition for any necessary

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extension of time.

Respectfully submitted,

/David A. Rose/
David A. Rose
Reg. No. 26,223
CONLEY ROSE, P.C.
P. O. Box 3267
Houston, Texas 77253-3267
(713) 238-8000
ATTORNEY FOR APPLICANT

CAMERON INTERNATIONAL CORPORATION
P. O. Box 1212
Houston, Texas 77251